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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,122	01/20/2004	Inao Toyoda	01-541	6676

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EXAMINER

WILSON, ALLAN R

ART UNIT PAPER NUMBER

2815

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/759,122

Applicant(s)

TOYODA ET AL.

Examiner

Allan R. Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 and 15-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4,5 and 9-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01/2004 & 03/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I (Figs. 1-5), claims 1-5 and 9-14, is acknowledged. The traversal is on the ground(s) that claim 1 is generic to all four species. This is not found persuasive because, for example, claim 18 has at least a second portion having smaller thermal conductivity than the first portion. Once claim 1 is allowable, the other claims can be rejoined if they contain all the limitation of claim 1.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

Claim 1 is objected to because of the following informalities: Claim 1, line 11, "surfaces ide" should be --surface side--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 USC § 102(b) as being anticipated by Tanimura et al. ("Tanimura") U.S. Patent No. 4,011,577 (disclosed by Applicants).

With regards to claim 1, Tanimura illustrates in figures 1-16, particularly figures 3 and 16, (entire document) a semiconductor substrate 1 for outputting an electrical signal in accordance with pressure applied in a thickness direction of the semiconductor substrate, wherein the semiconductor substrate has a first electrode 4 on a front surface thereof and a second electrode 5 on a back surface thereof, the electrical signal being output through the first electrode and the second electrode when the pressure is applied;

a pressure transmitting member 10 that is equipped at the front surface side of the semiconductor substrate and that transmits pressure to the front surface side of the semiconductor substrate, wherein the pressure transmitting member has electrically conductive properties (col. 5, lines 44-47, metal), wherein the first electrode is electrically connected to the pressure transmitting member (through layer 3, col. 5, lines 53-60);

a housing 100 (col. 13, lines 55-59) in which the semiconductor substrate and the pressure transmitting member are accommodated; and a lead member (connected 5 and 6) electrically independent of the housing and accommodated in the housing at the back surface side of the semiconductor substrate, wherein the lead member and the second electrode are electrically connected to each other.

With regards to claim 2, Tanimura discloses in fig. 3 the first electrode 4 is disposed at the peripheral portion on the front surface of the semiconductor substrate 1, the pressure from the pressure transmitting member 10 is transmitted to the center portion on the front surface of the semiconductor substrate, and the first electrode and the pressure transmitting member are electrically connected to each other through conductive adhesive material 3 (adheres to 2, 2' and 4).

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With regard to claim 3, a change in shape is generally recognized as being within the level of ordinary skill in the art.

Allowable Subject Matter

Claims 4, 5 and 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent Application Publication No. 2004/0182165 (illustrates a capacitive pressure sensor), Ootake et al. and Japanese Patent Application No. 10-300604 (illustrate pressure sensors with pressure transmitting members).

Field of Search	Date
U.S. Class and subclass: 257/415, 417, 418	April 18, 2005
Other Documentation: None	N/A
Electronic data base(s): EAST (USPAT, US-PGPUB, JPO, EPO, Derwent, IBM TDB)	April 18, 2005

Any inquiry concerning this communication or earlier communications from an examiner should be directed to Primary Examiner Allan Wilson whose telephone number is (571) 272-1738. Examiner Wilson can normally be reached 7:00-4:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allan R. Wilson
Primary Examiner
April 18, 2005